

1   What I claim is:

2   1. A double-pane window for the generation of electricity from light during daylight  
3   hours, comprising:

4  
5   a first and second panes, said panes are parallel to each other, each of said panes having a  
6   perimeter;

7  
8   said first and second panes spaced apart by a spacer along each of the perimeters;

9  
10   said window installed at an azimuth;

11  
12   a plurality of solar cells, said solar cells are between said first and second panes, each of  
13   said solar cells having a surface which receives said light;

14  
15   a plurality of pivot shafts, one of each of said solar cells fixedly attached to one of each  
16   of said pivot shafts;

17  
18   a plurality of gears, each of said gears having the same pitch diameter, one of each of said  
19   gears fixedly attached to one of each of said pivot shafts;

20  
21   a pinion rotatably positioned between each of said gears;

22  
23   a drive shaft;

24  
25   a drive gear, said drive gear fixedly attached to said drive shaft, each of said drive gear,  
26   said pinion, and said gears having the same gear tooth systems;

27  
28   a motor, said motor turning said drive shaft;

29  
30   an encoder, said encoder fixedly attached to one of said pivot shafts, said encoder  
31   measuring the rotation of said solar cells;

32  
33   a 24-hour clock, said clock measuring time in decimal form;

34  
35   a memory, said memory containing said azimuth, said sunup time, and said sundown  
36   time;

37  
38   a motion control amplifier, said motion control amplifier supplying current and voltage to  
39   said motor for the purpose of rotating said motor;

40  
41   a microprocessor, said position sensor providing the rotation of said solar cells to said  
42   microprocessor, said 24-hour clock providing the 24-hour time to said microprocessor, so  
43   that said microprocessor can move said solar cells clockwise to track the sun during  
44   daylight hours as a function of said azimuth and the time; and

45

1 a first and second conductors, said solar cells electrically connected to said conductors to  
2 provide electricity.

3  
4 2. The double-pane window, as in claim 1, further comprising:

5  
6 said panes are glass; and

7  
8 said panes are sealed along the perimeter.

9  
10 3. The double-pane window, as in claim 1, further comprising:

11  
12 said solar cells are arranged along the horizontal.

13  
14 4. The double-pane window, as in claim 1, further comprising:

15  
16 said solar cells are arranged along the vertical.

17  
18 5. The double-pane window, as in claim 1, further comprising:

19  
20 the angle between said solar cells and said panes ranges between +90 and -90 degrees.

21  
22 6. The double-pane window, as in claim 1, further comprising:

23  
24 a DC-to-AC converter, said double-pane window is electrically connected to said DC-to-  
25 AC converter for the purpose of converting solar generated DC electricity into AC.

26  
27 7. The double-pane window, as in claim 1, further comprising:

28  
29 a dichronic coating applied to one of said panes, said dichronic coating reflects light of  
30 one wavelength unusable by said solar cells in the production of electricity; and

31  
32 said dichronic coating transmits light of a different wavelength for the production of  
33 electricity.

34  
35 8. A method for a microprocessor to control a plurality of solar cells in a double-pane  
36 window, comprising the steps of:

37  
38 reading an azimuth, said azimuth being the orientation of said window;

39  
40 reading a time, said time is a 24-hour time expressed in decimal form;

41  
42 calculating an angle, said angle equaling said azimuth minus fifteen times said time;

43  
44 rotating said solar cells clockwise to said angle, provided said angle is between -90 and  
45 +90 degrees; and  
46

1 rotating said solar cells counterclockwise to a park position, if said angle is not between -  
2 90 and +90 degrees.

3  
4 9. The method for a microprocessor to control a plurality of solar cells, as in claim 8,  
5 further comprising the steps of:

6  
7 rotating said solar cells counterclockwise to a park position, if said time is between  
8 sundown and sunup.

9  
10 10. The method for a microprocessor to control a plurality of solar cells, as in claims 8 or  
11 9, further comprising the steps of:

12  
13 said park position equaling +90 degrees.

14  
15 11. The method for a microprocessor to control a plurality of solar cells, as in claims 8 or  
16 9, further comprising the steps of:

17  
18 said park position equaling 0 degrees.

19  
20 12. A logic array readable by a microprocessor, tangibly embodying a program of  
21 instructions executable by said microprocessor, to perform method steps for controlling a  
22 plurality of solar cells in a double-pane window, comprising the machine executed steps  
23 of:

24  
25 reading an azimuth, said azimuth being the orientation of said window;

26  
27 reading a time, said time is a 24-hour time expressed in decimal form;

28  
29 calculating an angle, said angle equaling said azimuth minus fifteen times said time;

30  
31 rotating said solar cells clockwise to said angle, provided said angle is between -90 and  
32 +90 degrees; and

33  
34 rotating said solar cells counterclockwise to a park position, if said angle is not between -  
35 90 and +90 degrees.

36  
37 13. The logic array readable by a microprocessor, tangibly embodying a program of  
38 instructions executable by said microprocessor, to perform method steps for controlling a  
39 plurality of solar cells, as in claim 12, further comprising the machine executed step of:

40  
41 rotating said solar cells counterclockwise to a park position, if said time is between  
42 sundown and sunup.

43  
44 14. The logic array readable by a microprocessor, tangibly embodying a program of  
45 instructions executable by said microprocessor, to perform method steps for controlling a  
46 plurality of solar cells, as in claims 12 or 13, further comprising:

1

2 said park position equaling +90 degrees.

3

4 15. The logic array readable by a microprocessor, tangibly embodying a program of  
5 instructions executable by said microprocessor, to perform method steps for controlling a  
6 plurality of solar cells, as in claims 12 or 13, further comprising:

7

8 said park position equaling 0 degrees.

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